



Objective

To evaluate intra- and interobserver reproducibility in the detection of uterine niche and in the measurement of its morphometric parameters by TVUS in early postpartum women after a caesarean section (CS)



Methods

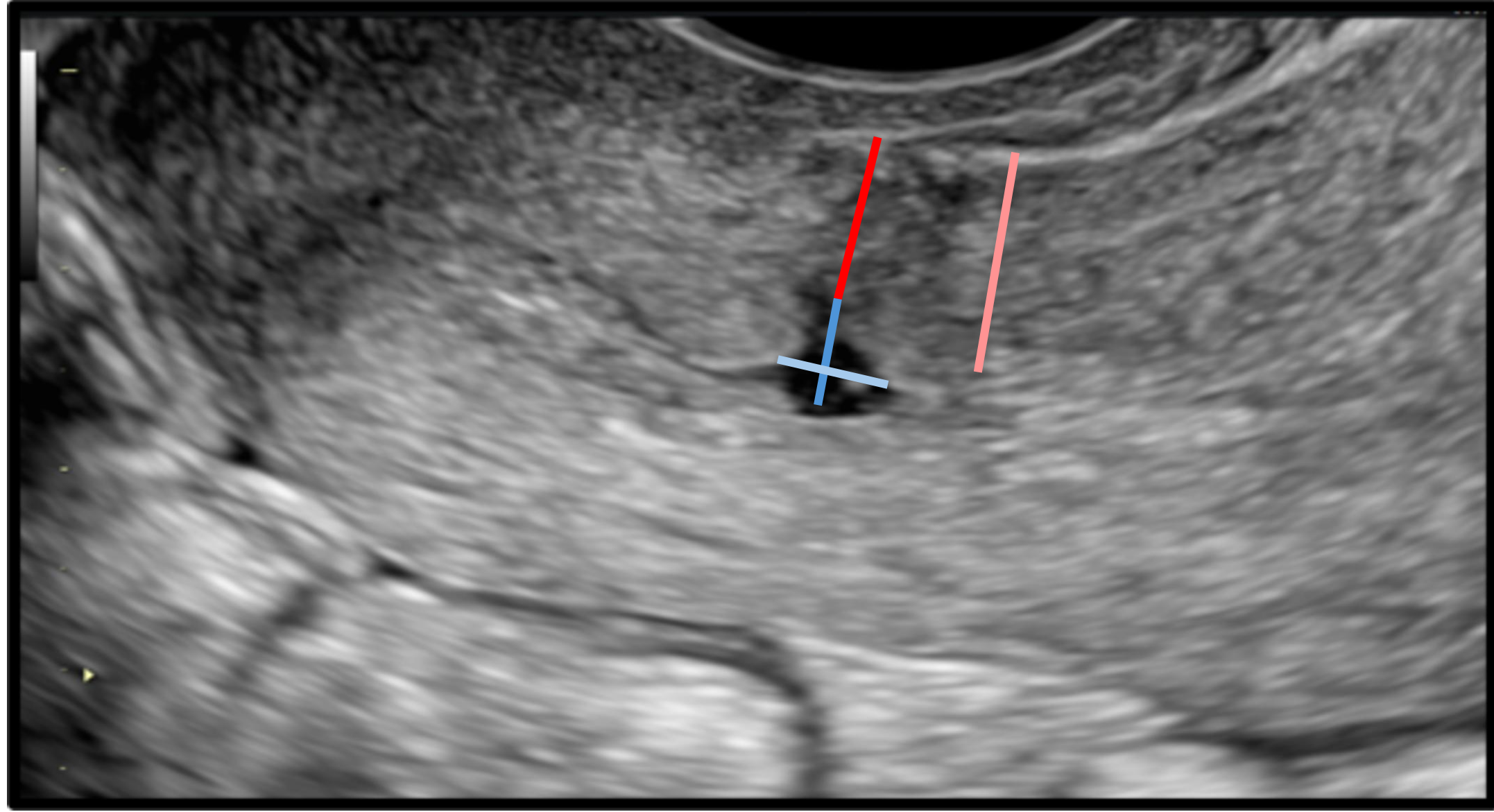
- A prospective observational study at a tertiary care centre was conducted
- A TVUS was performed at 6–12 weeks after the CS
- The presence of a niche was assessed, and its dimensions were measured, including depth, length, residual myometrial thickness (RMT), and adjacent myometrial thickness (AMT)
- The images were independently evaluated by two observers
- Intra- and interobserver reproducibility of continuous variables was assessed using a two-way random-effects intraclass correlation coefficient (ICC) with absolute agreement. F-tests were performed under the null hypothesis H₀: ICC = 0.5
- Agreement regarding the presence of niche (yes/no) was assessed using the percentage agreement and Cohen’s kappa coefficient

Depth

Length

RMT

AMT



Results

 **115** patients post CS included

Agreement for the presence of niche

INTRAOBSERVER	INTEROBSERVER
86,7% of agreement	82,9% of agreement
K = 0,7	K = 0,7

The reproducibility of the measurements was good to excellent, and all F-tests were statistically significant (p < 0.001)

Table 1. ICC of isthmocele measurements by TVUS.

Measurements by TVUS	Intraobserver ICC (95% CI)	Interobserver ICC (95% CI)
 Isthmocele length	0.74 (0.65–0.81)	0.81 (0.57–0.93)
 Isthmocele depth	0.79 (0.61–0.88)	0.83 (0.58–0.96)
 RMT (Residual myometrial thickness)	0.84 (0.78–0.89)	0.80 (0.48–0.89)
 AMT (Adjacent myometrial thickness)	0.81 (0.73–0.86)	0.80 (0.22–0.97)

Conclusion

TVUS demonstrates high intra- and interobserver reproducibility for detection and morphometric assessment uterine niche in the early postpartum period. TVUS may support clinical counselling in patients after a CS